

AMENDMENTS TO THE CLAIMS

LISTING OF CLAIMS

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Claim 1 (currently amended): A method of processing an image for display, said method comprising:

- a) mapping an area of a display to a region of said image, said area operable to display a first color of a plurality of colors;
- b) based on the intensity of said first color in said region of said image, calculating an intensity value for said first color to be displayed in said area of said display, wherein said region comprises an intensity value for each of said plurality of colors; and
- c) repeating a) - b) for additional areas of said display corresponding to additional regions of said image, mapping each area to its own region, wherein said image is processed.

Claim 2 (currently amended): A method as described in Claim 1, further comprising:

- d) displaying said processed image on said display, said display providing for control over individual sub-pixels, wherein each area of said ~~display~~output corresponds to a sub-pixel operable to display a color.

Claim 3 (previously presented): A method as described in Claim 1 wherein b) comprises:

- b1) averaging the intensity value of said first color over a plurality of regions neighboring said region of said image, wherein each of said areas maps to its own plurality of regions.

Claim 4 (currently amended): A method as described in Claim 1, wherein b) comprises:

- b1) based on the intensity of said first color in a said plurality of regions of said image, calculating an intensity value for said first color;

b2) calculating an error for said first color; and

b3) propagating said error for said first color for processing further regions of said image.

Claim 5 (previously presented): A method as described in Claim 4, wherein b) further comprises using in b1) an error that was propagated when processing another area for said first color.

Claim 6 (previously presented): A method as described in Claim 1, wherein b) comprises:

b1) based on the intensity of said first color in said region of said image, calculating an uncompensated intensity value for said first color;

b2) calculating an error for each of the rest of said plurality of colors within said region,

b3) storing said errors for said rest of said colors for processing further regions of said image; and

b4) calculating a compensated intensity value for said area, based on said uncompensated intensity value and errors which were calculated for said first color when processing other image regions.

Claim 7 (previously presented): A method as described in Claim 1, wherein b) comprises:

b1) using only information regarding the intensity of said first color to calculate the intensity of color to be displayed in said area.

Claim 8 (currently amended): A method as described in Claim 1, further comprising:

d) ~~prior to b), filtering said image to produce an image with the same color scheme as said display and using said filtered image in said step b)~~ filtering said

image prior to calculating the intensity value for said first color to be displayed,
thereby producing a filtered image having a similar color scheme as said display.

Claim 9 (previously presented): A method as described in Claim 1, wherein said output display has subpixel control.

Claim 10 (currently amended): In a system having a processor coupled to a bus, a display coupled to said bus, and a computer readable medium coupled to said bus, said computer readable medium having stored therein a computer program that when executed by said processor causes said computer system to implement a method for processing an image, said method comprising:

- a) accessing said image;
- b) based on the intensity of a first color in a region of said image, calculating an intensity value for said first color to be displayed on a sub-pixel of said display, said sub-pixel corresponding to said region of said image based on a pre-determined mapping, said pre-determined mapping providing a unique region of said image for said sub-pixel, wherein said display comprises a plurality of colors;
- c) repeating b) for additional regions of said image and corresponding additional sub-pixels of said display to process additional colors of said plurality of colors; and
- d) causing said sub-pixels to display said colors, based on said calculated intensities.

Claim 11 (previously presented): The system of Claim 10 wherein said display screen comprises a plurality of sub-pixels per pixel, said pixel comprising all of said plurality of colors, further wherein each color within said pixel is based on a different region of said image.

Claim 12 (previously presented): The system of Claim 11 wherein each sub-pixel is individually controllable.

Claim 13 (previously presented): The system of Claim 11 wherein b) of said method comprises:

b1) averaging the intensity value of said first color over a plurality of regions neighboring said region of said image, wherein each of said sub-pixels maps to its own plurality of regions.

Claim 14 (currently amended): The system of Claim ~~11~~¹³, wherein b) of said method comprises:

b1) based on the intensity of said first color in a ~~said~~ plurality of regions of said image, calculating an intensity value for said first color;

b2) calculating an error for said first color; and

b3) propagating said error for said first color for processing further 20 regions of said image.

Claim 15 (previously presented): The system of Claim 14, wherein b) of said method further comprises using in b1) an error that was propagated when calculating an intensity value for another sub-pixel for said first color.

Claim 16 (currently amended): A method of processing an image for display on a ~~an~~ display having sub-pixel display capability, said method comprising:

a) mapping a plurality of sub-pixels of said display to corresponding regions of said image, each sub-pixel being mapped to a unique region;

b) accessing said image, said image sampled at a higher spatial resolution than the spatial resolution of said display;

c) for each sub-pixel, calculating an intensity value for said sub-pixel using only intensity information for a first color from said corresponding region; and

d) rendering said image on said display, based on said calculated intensities.

Claim 17 (previously presented): A method as described in Claim 16 wherein c) comprises:

c1) averaging the intensity value of said first color over a plurality of regions neighboring said region of said image, wherein each of said areas maps to its own plurality of regions.

Claim 18 (previously presented): A method as described in Claim 16, wherein c) comprises:

c1) based on the intensity of said first color in said region of said image, calculating an uncompensated intensity value for said first color;

c2) calculating an error for each of the rest of said plurality of colors within said region,

c3) storing said errors for said rest of said colors for processing further regions of said image; and

c4) calculating a compensated intensity value for said area, based on said uncompensated intensity value and errors which were calculated for said first color when processing other image regions.

Claim 19 (previously presented): A method as described in Claim 18, wherein c4) comprises calculating said errors for said first region when processing a region for which uncompensated values are calculated for other colors of said plurality.

Claim 20 (currently amended): A method as described in Claim 16, further comprising:

~~e) prior to c), filtering said image to produce an image with the same color scheme as said display and using said filtered image in b)~~ filtering said image prior to calculating the intensity value for said sub-pixel, thereby producing a filtered image having a similar color scheme as said display.

Claim 21 (currently amended): A method as described in Claim 16, wherein a) comprises:

a1) for each sub-pixel of said ~~output~~ display, mapping said sub-pixel to a region of ~~a~~ said ~~input~~ image, wherein each sub-pixel corresponds to a single color and said region of said image comprises intensity information for said plurality of colors.

Claim 22 (previously presented): A method as described in Claim 16, wherein c) comprises:

c1) based on the intensity of said first color in said plurality of regions of said image, calculating an intensity value for said first color;

c2) calculating an error for said first color; and

c3) propagating said error for said first color for processing further regions of said image.

Claim 23 (previously presented): A method as described in Claim 22, wherein c) further comprises using in c1) an error that was propagated when processing another area for said first color.